



# International Cooperation in the New Frontiers Program

Presentation to the

New Frontiers Presolicitation Workshop

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## Space Act of 1958

- Sec. 102 (c) The aeronautical and space activities of the United States shall be conducted so as to contribute materially to one or more of the following objectives:
  - (1) The expansion of human knowledge of phenomena in the atmosphere and space;

. . .

(5) The preservation of the role of the United States as a leader in aeronautical and space science and technology and in the application thereof to the conduct of peaceful activities within and outside the atmosphere;

. . .

(7) Cooperation of the United States with other Nations and groups of nations in work done pursuant to this Act and in the peaceful application of results thereof; ...



# General NASA Framework for International Cooperation

- NASA cooperation with foreign partners is based on the "no exchange of funds" principle
- U.S. scientists obtain NASA funding for international collaboration via merit-based peer review of solicited proposals
- A letter of endorsement from an international partner's sponsoring agency is required with proposal
- Roles and responsibilities are documented in LOAs and MOUs
- Flight missions are divided into two major categories:
  - strategic missions
  - community-formulated missions



#### **New Frontiers**

Solicits community-formulated "package deals," like Discovery and Explorer, but with some differences:

- To be selected, a proposal must address specific solicitation investigation objectives
- Announcements of Opportunity (AOs) will be issued for New Frontiers approximately every 42 months
- Two routes to cooperation:
  - Cooperative U.S.-foreign proposals can be submitted; non-U.S. contribution are constrained (provisionally up to 30% of NASA phase C/D cost)
  - U.S. investigators may propose for support to collaborate on non-U.S. missions under "Mission of Opportunity" feature up to AO maximum TBD

## **NASA International Agreements**



- Generally between NASA and foreign government entity
- Serve several purposes:
  - document technical and administrative terms of the cooperation
  - needed for exercise of NASA's ITAR exemptions
- Most space science projects under an MOU or an LOA
  - MOU vs LOA: determined by "significance" of cooperative activity
- MOU generally used for major hardware exchanges
  - requires State Department-led inter-agency review
  - requires 12-24 months
  - executed by NASA Administrator
- LOA used for smaller cooperations
  - only internal NASA review is required (if under U.S. law)
  - requires at least 3 months, more often 6 or more
  - execution delegated to Director for Space Science and Aeronautics in the Office of External Relations
  - Interim/"study phase" LOAs sometimes used to bridge delays for MOUs



# NPD 1360.2 Highlights (1)

- NASA encourages mutually beneficial foreign participation in its programs, projects, and activities when such participation is appropriate and significantly enhances technical, scientific, economic, or foreign policy benefits
- NASA's counterparts will generally be foreign government agencies rather than foreign universities or private organizations
- Technical and scientific projects must merit support as contributions to NASA programmatic objectives. Each cooperative project must demonstrate a specific benefit to NASA or the United States.



# NPD 1360.2 Highlights (2)

- Each partner is to assume full financial responsibility for its own commitments, although the respective contributions of the cooperating partners need not be equivalent
- To minimize complexity, the division of responsibilities between NASA and the cooperating partner should be clearly defined with distinct managerial and technical interfaces
- Arrangements for cooperative projects must take into consideration the need to protect against the unwarranted transfer of technology abroad, in accordance with U.S. export laws and regulations
- Each cooperative project must be established in a formal written and signed project or program agreement which specifically states the responsibilities of each partner